CHAPTER I

TRADE PROTECTION AS A POLICY

Throughout the post-World War II period, the United States has consistently been among the world's most outspoken advocates of free trade. Although most authorities agree that free trade increases a nation's prosperity, not all industries are equally capable of competing against efficient foreign firms. Inevitably, an open trade policy leads to increased imports of certain products that reduce the demand for domestically produced substitutes. As a result, plants are idled and workers are laid off. To aid these firms and their employees, the United States has limited imports of these products on a number of occasions.

Although trade restraints tend to increase employment and profits in the protected industry above what they otherwise would have been, they impose significant costs on the overall economy. To reduce these costs, quotas or tariffs are supposed to be imposed for only a limited period of time. In principle, protection helps the industry adjust to greater competition in two mutually exclusive ways. First, it allows the industry to contract more slowly than it would have and thereby eases the transition for workers employed in the industry. Second, and more important, it gives firms the time and the resources to become better competitors. In this sense, protection is supposed to revitalize the industry.

This report analyzes the effects of trade restraints in four cases--namely, the textile and apparel, steel, footwear, and automobile industries--and focuses on whether the import restrictions did, in fact, enable these domestic firms to become more effective competitors. This chapter examines the policy goals of protection and examines how trade restraints might improve the international competitiveness of a domestic industry. It also considers their benefits as well as their costs to the overall economy. Finally, the chapter discusses the methods used to assess the effects of trade restraints in the case studies.

THE GOALS OF PROTECTION

Imports of products are restricted for two broad reasons. The first is when foreign firms and governments are not competing fairly, and thus trade pro-

tection is used to secure a "level playing field." Under U.S. trade laws, foreign governments are not permitted to subsidize firms that export to the United States, and foreign firms are not allowed to sell products in this country below their costs when these activities injure domestic firms. Under these circumstances, the United States can place countervailing or compensating duties on the sale of the affected products. In addition, the United States can restrict sales of a particular product in retaliation for a country's restriction on sales of U.S. produced goods.

The second major reason for protection is to aid those industries that have been seriously injured or threatened with serious injury by imports of foreign firms that are competing fairly. Under Section 201 of the Trade Act of 1974 (the "escape clause"), an industry can receive protection by demonstrating to the International Trade Commission (ITC) that it has been injured or threatened with serious injury by imports. The "escape clause" was originally designed so that industries adversely affected by negotiated tariff reductions could escape them and have the original tariff rates imposed. The Trade Act of 1974 severed the connection between trade liberalizations and protection for injured industries (see box).

The President, however, maintains the ultimate responsibility for imposing trade restraints. Moreover, the President can protect an industry without an affirmative finding by the ITC. Alternatively, if the President decides not to carry out the ITC's recommended action in an "escape clause" proceeding, the Congress can require the implementation of the ITC's recommendation by enacting a joint resolution within 90 days of the President's decision.

Although the "escape clause" is not the sole means by which industries can secure protection, the Trade Act of 1974 provides an important indication of the goals of the Congress in providing trade restraints. According to the act, trade protection is aimed at easing the transition to the new international environment. It has a time limit, and the level of protection must be relaxed after three years.

The transition is supposedly eased for two quite different reasons. First, it slows an industry's contraction and may thereby smooth the transfer of resources to other sectors of the economy. Second, by increasing profits, it may provide firms in the industry with needed resources to modernize their facilities so that they can compete more effectively with foreign firms.

Of these two goals, the Congress seems most concerned with the second--restoring the industry's international competitiveness. The legisla-

A SHORT HISTORY OF THE "ESCAPE CLAUSE"

In 1930, to aid a faltering economy, the United States enacted the infamous Smoot-Hawley tariff, which increased average tariff rates by nearly 50 percent. Instead of increasing domestic production, Smoot-Hawley led to retaliation by foreign governments and contributed to the length and severity of the depression. In 1934, the Congress empowered the President to negotiate bilateral tariff agreements that would reduce tariffs by up to 50 percent on specific commodities. These agreements paved the way for the General Agreement on Tariffs and Trade (GATT) in 1947, in which the major trading nations developed rules for international trade. Under the auspices of GATT, there have been seven rounds of tariff liberalization, and the average tariff on imports into the United States is now 20 percent of the levels established by the Smoot-Hawley tariff in 1930. There have also been a number of actions to reduce nontariff trade barriers.

While GATT's primary goal is to establish a more open international trade environment, it recognizes the right of a government to part from free and open trade in certain circumstances. In particular, Article XIX allows a country to "escape" from negotiated tariff reductions, if the increased imports can be shown to "cause or threaten serious injury to domestic producers" of competitive products. In those cases, the country can unilaterally elect to reinstate the trade barrier that was in effect before the concession. The provision was meant to give industries time to adjust to increased competition.

In the United States, requests for protection are made to the International Trade Commission (ITC), which has the responsibility for determining whether the industry has been seriously injured or threatened with serious injury by imports. If so, it recommends to the President the type of trade relief needed to alleviate the injury. The authority to adjust tariffs or impose quotas is reserved for the President. In addition, the ITC can recommend that employees and firms be given trade adjustment assistance.

In determining appropriate relief, the President is to consider its effectiveness in facilitating adjustment, as well as its costs on consumers and the economy. Often the President does not impose relief in cases where the ITC has recommended it. The President may also decide to seek import relief even though the ITC has found that imports were not the major factor behind the industry's injury, as President Reagan did for the automobile industry in 1982. There have also been a number of instances where trade protection has been awarded without a formal escape clause proceeding.

The Trade Act of 1974 relaxed the requirements to qualify for escape clause relief. It severed the connection between trade liberalization and import protection, making the term "escape clause" somewhat of a misnomer. In addition, the importance of imports in causing the injury was reduced. Previously, it had to be shown that imports were a more important cause of injury than all others causes taken together. Under the revised standard, imports merely had to be the most important cause. Despite these liberalizations, securing trade relief via the escape clause route remains a far from certain proposition. Between 1975 and 1984, there were 53 petitions before the ITC for escape clause protection (including petitions seeking extension of existing protection). In 28 of these cases, a majority of the ITC's commissioners recommended relief, and in only 13 of these industries were imports restricted by the President.

tive history states that the "escape clause" is "not intended to protect industries which fail to help themselves become more competitive through reasonable research and investment efforts." In the Trade and Tariff Act of 1984, the Congress reaffirmed its view that protection is a means of increasing efficiency by requiring the steel companies, which had just been awarded protection by President Reagan, to invest all of their cash flow in the industry.

Modernizing an industry is not necessarily consistent with preserving the jobs of the people employed in it. In fact, major sources of the competitive difficulties of U.S. trade-impacted industries are higher wage rates and antiquated production facilities. In such situations, firms generally find it necessary to establish a newer and often less labor-intensive production process, which increases productivity but reduces employment. Furthermore, a firm responding to protection in this manner may decide to build a new plant in a different locality, thereby improving the competitive condition of the industry but providing only limited benefits to current employees of the firm. For example, in the 1950s and 1960s, many protected textile firms moved their production facilities from New England to the Southeast. 1/

Finally, one can make a case that trade protection legislations tries to achieve a third implicit goal--long-term preservation of industries. For example, the Textile and Apparel Trade Enforcement Act would have placed rather substantial restrictions on textile and apparel imports without a time limit. 2/ Although the legislation was passed by the Congress in 1985, it was vetoed by the President.

PROTECTING DOMESTIC INDUSTRIES: WHAT MIGHT BE GAINED?

By increasing demand, trade restraints often benefit resources such as labor and capital that are employed in the protected industry. For example, protection may slow or even reverse an industry's decline in employment, and

1. See Robert Z. Lawrence and Paula R. DeMasi, "The Adjustment Experience in Escape Clause Relief," in Gary Hufbauer and Howard Rosen, eds., *Domestic Adjustment and International Trade* (Washington, D.C.: Institute for International Economics, forthcoming).

2. See Congressional Budget Office, "Protecting the Textile and Apparel Industry," Staff Working Paper, September 1985.

therefore, employees who would have been laid off will not have to incur the cost of finding other work. If the industry's competitive position does not change, however, these adjustment costs will be borne once the trade restraints lapse. Protection may also encourage greater investment in an industry. If a new plant and equipment result in lower costs or new products, it may improve the long-run competitiveness of the industry. Protection, however, does not generally increase a firm's incentives to spend more money on cost-reducing technologies.

Benefits and Costs While Trade Restraints Are in Effect

By reducing the supply of imports, trade restraints increase their price and raise demand for domestically produced substitutes. The higher demand, which lasts as long as the restraints are in effect, tends to benefit resources such as labor and capital that are employed in the industry. Moreover, to the extent that the restraints enable these resources to avoid spells of unemployment, gains accrue to the economy as well. These gains are generally more than offset by reduced output in other sectors of the economy.

Labor. Protection may preserve jobs in the industry and therefore reduce layoffs. 3/ Workers who lose their jobs, however, whether because of import competition or other causes, generally find other employment. Thus, one benefit of protection is that some employees will avoid spells of unemployment, as well as the costs of job search and retraining. That saving also happens to benefit the economy.

The benefit to a worker from preserving a job, however, is not always the same as the benefit to the economy. For example, laid-off workers often receive unemployment compensation that makes up somewhat for their loss in pay. Because this compensation is simply a payment from one group to another, it does not benefit the economy. A similar difference occurs in the case of workers who do find jobs. Displaced workers are generally paid less in their new jobs, and they do not reach comparable pay

3. In oligopolistic industries, protection may permit firms in an industry to increase prices and reduce output and thereby reduce employment. See Avinash Dixit, "International Trade Policies for Oligopolistic Industries," *Economic Journal* (Supplement 1984), pp. 1-16.

for a number of years. 4/ This potential decrease in salary increases the benefit of trade protection to the employee. On the other hand, since the worker is productively employed, the benefit to the economy is not substantially increased.

Some workers have more difficulty in finding jobs than others. The benefits to the economy of protecting an industry are in proportion to the number of such workers who are employed in the protected industry. To the extent that the economy is operating at less than full employment, the difficulty that laid-off workers have in finding other jobs increases, and thus the benefits of protection to both the worker and the economy rises.

When an industry that is a significant employer in a region contracts rapidly, the local labor market may be inundated with job seekers. By permitting a more gradual contraction, protection may make it easier for other firms to absorb these displaced workers and thereby reduce the costs of adjusting to import competition. 5/ For example, if layoffs in a region can be reasonably expected at some future time, other firms may establish plants in that region in response to the expected increased availability of workers. Such a situation would be consistent with the Congress's goal of providing an industy with trade protection to facilitate the orderly transfer of resources to other uses.

A recent survey of workers who lost their jobs because of falling production found that older and less skilled workers, as well as those employed in the North Central United States, had the most difficulty finding new jobs; other studies have reached similar conclusions. 6/ Overall, the

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4. For a discussion of valuing the cost of the unemployment, see Morris Morkre and David Tarr, *Effects of Restrictions on United States Imports*, Staff Report of the Bureau of Economics to the Federal Trade Commission (June 1980), p. 19. For an examination of the ability of displaced workers to find new jobs, see Congressional Budget Office, *Dislocated Workers: Issues and Federal Options* (July 1982); and Office of Technology Assessment, *Technology and Structural Unemployment: Reemploying Displaced Adults* (Washington, D.C.: U.S. Government Printing Office, February 1986).

5. For a discussion of adjustment costs, see Donald Parons, "Unemployment, the Allocation of Labor and Optimal Government Intervention," *American Economic Review* (September 1980), pp. 626-635. Also see, Michael Mussa, "Government Policy and the Adjustment Process," in Jagdish Bhagwati, *Import Competition and Response* (Chicago: University of Chicago Press, 1982), pp. 73-120.

6. See Paul O. Flaim and Ellen Sehgal, "Displaced Workers of 1979-83: How Well Have They Fared?" *Monthly Labor Review* (June 1985), pp. 3-16, and the references therein.

study found that only 60 percent of the workers who lost their jobs between January 1979 and January 1984 were employed in January 1984. Over half of these people had found new jobs within 13.1 weeks. The study also reported, however, that 27 percent of the displaced workers who did not have work in January 1984 were still in the labor force and had been looking for work for more than six months. Of the displaced workers, 35 percent who were not employed in January 1984 were no longer in the labor force. The study does not indicate the extent to which they were discouraged job seekers.

If an industry has not improved its international competitive position while the trade restraints have been in effect, imports will again increase once protection lapses. In that case, the benefit of protection would have largely been to delay the costs of unemployment, adjustment, and retraining that result from increased imports. (The costs would be reduced to the extent that the labor force had already contracted because of voluntary separations and retirements.) If an industry manages to increase its international competitiveness substantially, these costs of adjustment can be reduced or eliminated.

Capital. Increases in imports can mean that an industry's plant and equipment will be less fully employed, and protection limits this idling of capacity. But this benefit is relatively small and short-lived. Some of the idled capital--such as office supplies, trucks, and certain machine tools--could be employed in other industries. While other capital like textile looms or steel rolling mills could not be easily shifted to other industries, reductions in capacity utilization would still impose a relatively small cost on the economy. The industry's least efficient facilities would be the first to shut down and could be approaching economic obsolesence in any case. Over time, other plants would cease production as firms find that they cannot expect to earn an adequate return from additional investments. In those cases where efficient product-specific plant and equipment is idled, increased imports could result in some social costs.

Costs to the Economy. Trade allows a nation to supplement its domestic production. With open trade, a nation will specialize in those goods and services that it can produce relatively efficiently. The combination of trade and specialization increases the amount that each nation, given its limited resources, has to consume and invest, and thereby raises economic welfare.

To the extent that an economy's resources are fully employed, protection prevents an economy from realizing the advantages of open and free trade. Most directly, it increases the prices of the imported product and its domestically produced substitutes. Protection also increases prices of other products in the economy. Firms in the protected industries will use labor and other resources that, in the absence of protection, would have been used more productively in different sectors of the economy. Since less of these products will be produced, their prices will be higher. If tariffs are used to restrain imports, however, the government captures the increased price of imports, which reduces the cost of the restraints to the economy.

In addition, protection in one industry can have a direct and adverse effect on other industries that compete in international markets. For example, protecting producers of an intermediate product, such as steel, increases the costs of downstream producers, such as automobile manufacturers, and makes them less competitive with foreign producers. Moreover, if trade restraints reduce the dollar revenues of foreign producers, the supply of dollars on foreign currency markets would shrink. Reducing the supply of a currency increases its value and at the same time lowers the price of other imported goods.

Nevertheless, imposing a tariff may be socially beneficial if foreign producers have market power for a particular product (in other words, if they charge prices in excess of their costs, including the cost of capital). Since the United States is a major market, its actions can affect prices on world markets. By setting the proper tariff, the U.S. government can reduce the price of the product on world markets and capture some of the profits that the foreign producers earn from their monopoly. The benefits to such a tariff are independent of any increases in domestic employment or output and would be realized even if no domestic competition existed.

Protection as a Means of Revitalizing an Industry

The success of foreign producers in penetrating domestic markets stems from two factors: their production costs are lower and/or their products have different characteristics, including product quality, that appeal to domestic consumers. By limiting the growth of imports and increasing profits, protection may give domestic firms certain long-run benefits; namely, the time and resources to reduce their costs or change their product lines in order to compete more effectively with foreign firms. In addition, protection may enable domestic firms to grow more rapidly than their foreign rivals and thereby achieve a cost advantage. Even if protection improved an

industry's international competitive position, however, the gains to the economy would generally not be very large.

Protection From Lower-Cost Producers. Frequently, the success of foreign producers stems from their lower costs, and more specifically their lower wage rates. To compete against producers with low wages, domestic firms must adopt a less labor-intensive production process. This approach generally entails investing in new plant and equipment. By increasing profits, protection is supposed to give firms the means and motivation to adopt new technologies.

Trade restraints do not, however, substantially increase a firm's incentives to make such investments even if the relevant technology exists. A firm would realize the higher revenues resulting from protection regardless of whether it invested in new technologies. Alternatively, equipment that reduced a firm's average variable costs by 10 percent would do so whether or not the industry was protected. Indeed, protection can actually reduce a firm's incentives to invest. In an uncertain world, a firm must evaluate the possible consequences of its potential actions. If imports from lower-cost producers are restricted, a firm may be less inclined to make a major and risky investment in a cost-reducing project.

On the other hand, protection may lower a firm's cost of capital and thereby spur investment. First, by increasing profits, protection increases the firm's available funds and thus reduces its average cost of capital. Second, imposing trade restraints may lower the perceived risks of providing capital to the industry, which will also increase the supply of funds available. Reducing a firm's cost of capital makes it more likely that an investment will be profitable. The likelihood of this effect, however, is probably small. Efficient capital markets will provide the funds needed to invest in a new technology at an appropriate (risk-adjusted) interest rate. In fact, many firms in protected industries are profitably engaged in activities other than domestic production of the protected product.

Furthermore, investments aimed at lowering costs depend critically on the existence of a new technology. But if this technology can be acquired by foreign producers, then cost parity may be only a short-term proposition. In addition, if the industry is protected by quotas, the profits of foreign firms may very well increase since they are able to charge higher prices for their products. To the extent that increased profits encourage firms to invest in new technologies, protection may have the unintended effect of encouraging foreign firms to adopt cost-saving technologies.

Protection as a Response to Different Product Offerings. Imports may grow as a result of a new product or a shift in consumer demand to existing products. For example, the increases in oil prices in the 1970s raised demand for smaller cars, which were largely produced by foreign producers. By limiting the ability of the foreign firms to capitalize on their advantage, trade restraints may reduce the costs to domestic firms of developing competitive products.

When brand identification is important, which is the case for many durable goods, trade protection can increase the likelihood that domestic firms will be able to compete successfully. By slowing the growth of foreign producers' products, protection makes it easier for domestic producers to establish brand recognition for their products. In addition, restraints raise the price of the protected product, which increases the expected profitability of a firm introducing a competitive product. These advantages would be transitory, however, if domestic producers were not able to produce a given quality of product competitively with efficient foreign producers.

Protection for Uninjured Industries. There are special cases in which protection may be used strategically to improve the international competitive positions of domestic industries, even if they have not been harmed by imports. Specifically, if protection enables firms to increase significantly their rates of growth, they may be able to exploit economies of either scale or learning-by-doing and therefore reduce their average costs. 7/

Economies of scale refer to the relationship between the average cost and the size of the firm or plant. In many industries, larger plants, at least up to some size, can operate at lower average cost. In addition, over time firms become more efficient and, therefore, can produce at lower cost. Employees learn to do their jobs better and can more readily detect problems in the production process at an early stage. Thus, independent of the scale of production, a firm's costs will decline as its cumulative output increases. This effect is referred to as economies of learning-by-doing.

By restricting imports, trade restraints enable domestic firms to produce more than they otherwise would have. Consequently, in industries where economies of scale or learning-by-doing are important and have not been realized, trade protection may enable domestic firms to reduce their

7. See Paul Krugman, "New Theories of Trade Among Industrial Countries," *American Economic Review* (May 1983), pp. 343-347.

costs of production. 8/ Moreover, by limiting foreign sales in the domestic market, these restraints make it more difficult for foreign manufacturers to achieve these economies. Such gains are most likely to be realized in markets for newly developed products that are rapidly growing and would be affected by the responses of foreign governments.

The Gains to the Economy From Revitalizing an Industry

Even in those cases where protection improves the long-run competitive position of a domestic industry, the benefits to society may not be very great. If a protected industry successfully adjusts, it will employ more capital and labor than it otherwise would have. In a fully employed economy, however, nonprotected industries would correspondingly employ fewer resources. Society, as a whole, does not necessarily benefit from such transfers among industries.

In the event that protection enables a domestic firm to reduce its costs, it might be able to secure market power and charge prices in excess of its long-run costs. In that case, wealth would be transfered from foreign nations to the United States, and as a result domestic welfare would be enhanced. 9/ Similarly, if trade protection were to bolster the competitive position of domestic firms, foreign firms might not be able to secure a monopoly. By preventing such a transfer of wealth, trade protection could have a beneficial effect on the economic welfare of the United States. These benefits would most likely be realized in dynamic and rapidly growing markets. Current trade laws are not, however, designed to achieve such ends. The "escape clause" and other special initiatives to protect industries have largely involved mature industries like steel where demand is stagnant and domestic producers operate at a significant cost disadvantage to foreign competitors.

Even more fundamentally, it is not uncommon for a developed economy to shift from being an exporter to an importer of a product. 10/ New

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8. For a discussion of the pros and cons of the use of strategic trade policy, see James Brander, "Rationales for Strategic Trade and Industrial Policy," and Gene Grossman, "Strategic Export Promotion: A Critique," in Paul Krugman, ed., *Strategic Trade Policy and the New International Economics* (Cambridge: MIT Press, 1986).

9. See Krugman, "New Theories of Trade."

10. See Raymond Vernon, "International Investment and International Trade in the Product Life Cycle," *Quarterly Journal of Economics* (May 1966), pp. 190-207.

products--especially technologically advanced ones--are generally introduced by firms in advanced economies. Over time, the product and the production technology tend to become standardized. In competing in such mature product markets, a firm's success is increasingly determined by its relative cost of production. If production is relatively labor intensive, domestic firms will tend to have higher costs than producers in lower-wage countries, and imports from these countries will increase. The decline of some industries coupled with the growth of others allows an economy to use its resources most effectively.

THE CASE STUDIES

The following four chapters consider the impact of trade protection in four sectors--textiles and apparel, steel, footwear, and automobiles. These industries are among the largest in the economy, and the ones that have received the most trade protection. While size alone makes them of special interest, it also means that relevant data on them are readily available, which is not the case for many of the smaller industries that have received protection. 11/

The focus of inquiry in the four case studies is on whether trade protection enabled these domestic industries to improve their international competitive position significantly. It considers the process by which trade protection is intended to improve an industry's competitiveness and determines whether these threshold requirements were met. In addition, it examines whether the industry has been able to rectify the sources of its competitive difficulties.

As previously discussed, trade protection can only indirectly improve an industry's competitiveness. First, the restraints must restrict imports and increase their price. Second, the higher price of imports must increase demand for domestic substitutes and thereby increase profits. Third, the

11. Despite these data limitations, studies have considered the effects of protection in industries not considered here. See, for example, International Trade Commission, *The Effectiveness of Escape Clause Relief in Promoting Adjustment to Import Competition*, Publication 1229 (March 1982); Robert Z. Lawrence and Paula DeMasi, "The Adjustment Experience in Escape Clause Relief," in Gary Hufbauer and Howard Rosen, eds., *Domestic Adjustment and International Trade* (Washington, D.C.: Institute for International Economics, forthcoming); Gary Hufbauer, Diane Berliner, and Kimberly Ann Elliot, *Trade Protection in the United States: 31 Case Studies* (Washington, D.C.: Institute for International Economics, 1986).

higher profits would have to lead to greater investment in plant and equipment as well as a reduction in costs. If protection fails to achieve these objectives, it will not have achieved its goal. Thus, each of the case studies examines the effect of protection on the quantity of imports as well as on the profits and investment of domestic firms.

The effect of protection on the supply of imports and the resulting increase in domestic demand may not be as large as or as long lasting as was envisioned. While quotas are among the most frequently used form of special protection, they are rarely placed on all the countries that export the relevant product to the United States. Countries not subject to the quotas frequently increase their exports, which limits the impact on the prices of imported goods and on demand for domestic products. Quotas also give exporters an incentive to shift their mix of products toward higher-valued products. 12/ Since domestic firms are often most competitive in this segment of the market, this shift reduces the benefit of the restraints to the domestic industry.

The case studies also compare the industries' profits and investment with the levels that had existed before protection, rather than the levels that would have existed had protection not been granted. Arguably, before the imposition of the trade restraints, an industry's profits, and therefore investment, had been insufficient to enable firms to compete effectively. Thus, for protection to have achieved its goal, it would have had to increase the investments of firms above what they had been.

An increase in investment, however, does not necessarily imply that an industry will be able to compete more effectively. For example, even if the investments reduced costs, domestic firms may still operate at a significant cost disadvantage. Since labor costs are a substantial source of domestic firms' higher costs, one indication of the success of increased investment is the increase in labor productivity. In the case studies that follow, the reader can discern more direct evidence of a change in the industry's ability to compete by considering the growth of imports in the period after the restraints were relaxed. A substantial increase in imports probably indicates that the industry's competitiveness was not significantly improved.

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12. This effect is most easily demonstrated when there is a market for the quota rights to import the protected product. (The proposition, however, does not depend on the existence of such a market.) In that case, the cost of the quota right will result in a smaller percentage increase in the price of the higher-priced product than in the price of the lower-priced product. Because of this shift in relative prices, sales of the higher-priced product will increase relative to sales of the lower-priced product. See Rodney E. Falvey, "The Composition of Trade within Import-Restricted Product Categories," *Journal of Political Economy*, vol. 87, no. 5 (September 1979), pp. 1105-1114.

CHAPTER II

TEXTILES AND APPAREL

Domestic textile and apparel industries have been protected by a system of quotas that is still evolving after 30 years. For the most part, these quotas have been negotiated under the umbrella of a series of multilateral international agreements between exporters of textile and apparel products (largely developing nations) and their major customers (the developed countries).

While the quotas have limited exports of certain products from some countries, they have invariably led constrained manufacturers to shift production to other products. New exporters emerged that ultimately also had to be restrained by quotas. Thus, through much of the period that they have been in effect, quotas had a larger impact on the sources of imports than they had on the quantity of imports. As a result, restraints have provided the textile and apparel industries with only limited protection. Notably, however, some segments of the domestic industry, such as many synthetic and industrial textile manufacturers, have demonstrated an ability to compete successfully with foreign firms. Yet, the system of protection has not increased the international competitiveness of the textile and apparel industries. Although both of the industries have substantially increased their productivity, the quotas have not played much of a role in the improvements. Moreover, imports are currently accounting for an increased share of domestic consumption.

CHARACTERISTICS OF THE TEXTILE AND APPAREL INDUSTRIES

The textile industry includes the production of yarn or thread, the creation of fabric from these products by weaving or knitting, and finishing operations such as dying, printing, and sanforizing. Of textile output, 35 percent is used for apparel, and 33 percent is devoted to home furnishing, which includes sheets, towels, furniture covering, and carpeting. The remainder is used for industrial purposes, ranging from automobile upholstery to industrial bags and belts.

There are important differences within the textile industry based on fiber type. Natural fibers (primarily cotton, but wool as well) are produced

using a technology that is not significantly different from that of 150 years ago. Although every step has been greatly speeded up and certain intermediate steps eliminated, the processes themselves--carding, spinning, and so forth--are recognizably the same. In contrast, synthetics use a technology developed after World War II, involving the drawing or extrusion of fiber filaments. The first synthetic to achieve commercial success was nylon (developed by DuPont in 1935), but it was not until the 1950s that fibers such as polyester and acrylic were widely available. 1/ Such products were initially produced exclusively by developed countries, owing to both patent protection and the relatively high degree of technical sophistication required. Domestic production of synthetic textiles has increased rapidly throughout the post World War II period and in 1984 was 72 percent of total textile mill output; cotton accounted for 25 percent; and wool 3 percent. Most of the textiles currently employed in industrial uses are synthetics.

The apparel industry cuts and assembles clothing from fabric. The distinction between the textile and apparel sectors, however, is not always clear. For example, in producing knit apparels, yarn can be turned directly into garments or pieces ready for assembly.

Competitiveness of the Industry

Traditionally, production of both textile and apparel products has been relatively labor intensive, which has also been the primary source of the industry's international competitive difficulties. Partly because of the growth in synthetic fiber production, the capital intensity of the textile industry has increased, though it remains less so than the average U.S. manufacturing industry. The apparel industry continues to be very labor intensive. The limpness of the material has made it difficult to automate the cutting and handling of fabric. Apparel demand is also subject to shifts in fashion, making long production runs on many items uneconomical. Nevertheless, large automated plants have been developed to produce commodity-type items like jeans and men's shirts in which styles do not change much and for which demand is relatively large.

In 1980, the net value of capital equipment per worker in the textile mill products industry, Standard Industry Classification (SIC) 22, was $9,020, slightly below the average for all manufacturing. In apparel (SIC 23), it was

1. Rayon, the first man-made fiber, was produced commercially in 1891. But since it is made from cellulose, the same basic component as cotton, it is not referred to as a synthetic. The term "synthetic" is used to describe fibers made of complex organic chemicals, often with a petroleum base.